Journal of the Egyptian Society of Cardio-Thoracic Surgery 25 (2017) 109–113

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Contents lists available at ScienceDirect

Journal of the Egyptian Society of Cardio-Thoracic Surgery

journal homepage: http://www.journals.elsevier.com/journal-of-the-egyptian-society-of-cardio-thoracic-surgery/

Primary pulmonary vein leiomyosarcoma presenting as left atrial mass: A case report

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ARTICLE INFO

Article history:
Received 17 February 2017
Received in revised form 10 March 2017
Accepted 14 March 2017
Available online 27 March 2017

Keywords:
Cardiac
Sarcoma
Left atrium
Mass
Chemotherapy

ABSTRACT

We represent a case of 47 years old known diabetic Sudanese lady with a 6 months history of productive cough with blood tinged sputum. Her initial chest X ray and CT scan revealed a right pleural effusion which was negative for TB and malignancy. Two months later she experienced increasing dysponea. A huge left atrial mass was discovered during echo-cardiographic evaluation which proved to be Leiomyosarcoma after surgical excision and histopathological examination.

1. Introduction

Primary cardiac neoplasms are rare entities with incidence reported to be 0.0017–0.019% [1,2]. Quarter of primary cardiac tumors is malignant and leiomyosarcoma represents about 7%. The most common site to be involved by leiomyosarcoma is pulmonary vessels, left atrium, aorta and venae cavae [3]. Preoperative diagnosis is difficult due to non specific clinical presentations and absence of characteristic echocardiographic and radiographic appearance. When diagnosed, leiomyosarcoma is often in advanced stage of local invasion or even distant metastases [4,5].

2. Case presentation

A 47 years old known diabetic Sudanese lady had been referred to us from her chest physician for cardiac evaluation due to increasing dyspnea for the last 2 months that proved to be of non pulmonary origin.

Her initial complaints started 6 months before presentation with productive cough with blood tinged sputum. She denied presence of night sweat and fever or recent loss of weight and she had no similar attack. Her chest X ray revealed presence of

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Peer review under responsibility of The Egyptian Society of Cardio-thoracic Surgery.

http://dx.doi.org/10.1016/j.jescts.2017.03.006

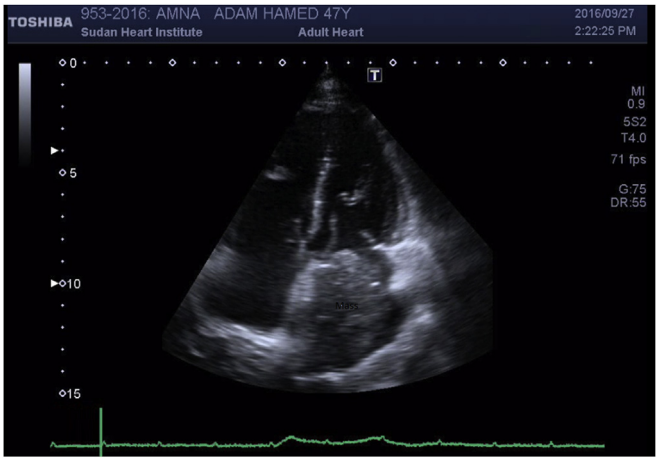

Fig. 1. TEE (2D) Shows mass nearly fill the left atrial cavity and protruding through the mitral valve during diastole.

consolidative changes in the right lower lobe and right pleural effusion that was blood tinged and negative for TB reactions and malignant cells. Her chest physician started empirical anti-tuberculous therapy with slight improvement of her symptoms.

For the last two months, she complained of increasing dyspnea and palpitations. Her clinical evaluation was unremarkable except for mild anemia, resting sinus tachycardia (110/min.) and past history of uterine myomectomy excision.

Echocardiographic evaluation revealed presence of huge mobile left atrial mass occupying nearly most of left atrial cavity and protruding into the left ventricle during diastole (Fig. 1). The attachment of this mass could not be detected as the interatrial septum was free. Other echo findings were unremarkable except for elevated pulmonary artery pressure (85 mm Hg) and mild tricuspid regurgitation. Her coronary angiography was normal.

2.1. Procedure

The patient was taken urgently to surgery. Under complete general anesthesia and median sternotomy approach, cardiopulmonary bypass instituted with routine aortic and bicaval cannulation. Myocardial protection was achieved using antegrade intermittent warm blood hyperkalemic arrest.

The left atrium was opened anterior to the right superior pulmonary vein with difficulty to get the mass through the left atrium. Then the right atrium was opened parallel to the atrio-ventricular groove and the interatrial septum was opened through the fossa ovalis. The mass was attached and protruding from the right inferior pulmonary vein that was excised and removed from within. The right pleural space was entered and the right lower lobe was examined and found to be firm in consistency and congested with the presence of undiscovered bloody pleural effusion. The patient had uneventful operative and post operative course with improvement of the right lower lobe consolidation.

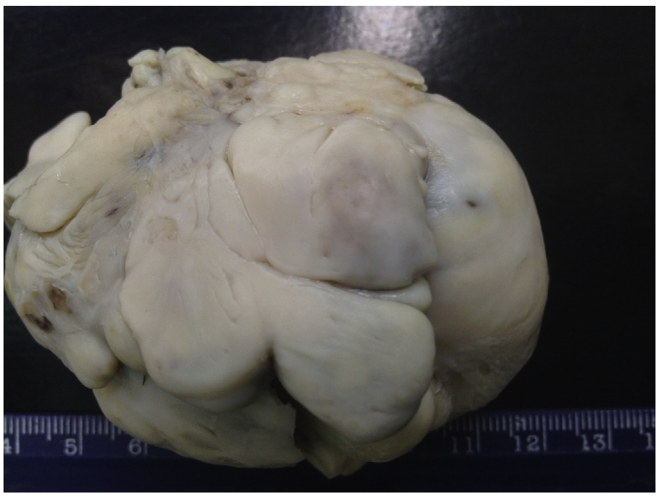

Fig. 2. Gross picture showing white irregular lobulated mass.